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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/662,440

09/16/2003

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EXAMINER

DESAI, ANISH P

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/662,440	Applicant(s) UKEI ET AL.	
	Examiner ANISH DESAI	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on 03/13/09 after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/13/09 has been entered. Support for the newly amended claim is found in the specification as originally filled.
2. The objection to the specification is maintained, except that the Examiner is withdrawing his comments with regards to "undue experimentation" as set forth on page 3 of 09/15/08 Office action (beginning at "That they do not indicate that undue experimentation...The inventor's lack of guidance...").
3. In view of the newly amended claim, the 35 USC Section 103(a) rejection based on Ludwig (US 3,088,848) in view of Ishikawa et al. (US 5,212,011) and Lee (US 5,428,093) is withdrawn. However, a new 35 USC Section 103(a) rejection based on Tritsch (previously referred to it as "Ludwig") (US 3,088,848) in view of Ishikawa et al. (US 5,212,011) is made.
4. Upon further consideration, a new 35 USC Section 112-first paragraph rejection is made.
5. A new claim objection is made.

Specification

6. The disclosure is objected to because of the following reasons:

7. It is noted that the specification recites "Incidentally, as the high-density polyethylene are preferable ones having a density of from 0.940 g/cm^3 to 0.970 g/cm^3 , and are especially preferably ones having a density of from 0.950 g/cm^3 to 0.965 g/cm^3 . On the other hand, as the low-density polyethylene are preferably ones having a density of from 0.880 g/cm^3 to 0.930 g/cm^3 , and are especially preferable ones having a density of from 0.910 g/cm^3 to 0.929 g/cm^3 ." (See 0039 of the PG PUB of the presently claimed invention).

8. Example 2 of Table 1 of applicant's invention discloses a blend of 70% LDPE1 (density 0.919 g/cm^3) and 30% HDPE1 (0.964 g/cm^3) with no filler added to the blend. The densities of LDPE and HDPE in the example 2 are within the range as that of disclosed by applicant (0039 of the PG PUB of the presently claimed invention). The adhesive tape of this example is completely satisfactory in terms of properties of maximum stress at elongation, stress at break, and elongation at break (see Table 3). However, Comparative Examples 1, 3, and 5, all use same weight% of LDPE and HDPE as that of Example 2. Additionally, the densities of LDPE and HDPE used in the aforementioned Comparative Examples are within the range that is disclosed by Applicant (see paragraph 0039 of the PG PUB of the presently claimed invention). Further, a filler is not added in the blend disclosed in the aforementioned Comparative Examples. But as seen from Table 4, the results (e.g. maximum stress at break) of the aforementioned comparative examples are inadequate. For example, the maximum

stress at break for comparative example 2 is smaller than the stress at break (see Table 4).

9. Based on the above, there appears to be contradiction in the specification. Given applicant's teachings in the specification for suitable densities of the polymers, Comparative Examples 1, 3, and 5 should have an acceptable result. Since comparative examples uses LDPE and HDPE with the densities that applicant's specification describes as being suitable, it is not clear why the comparative examples show inferior results (e.g. maximum stress at break). Clarification is requested.

Claim Objections

10. Claim 1 is objected to because of the following informalities: this claim recites "wherein ***the substrate*** is formed from a resin composition". It is advised that "supporting" is inserted between "wherein the" and "substrate is formed from a resin composition" in order to ensure proper antecedent basis.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1, 2, and 5-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

12. Regarding claim 1, the specification as originally filled fails to provide support to recite "low density polyethylene having a density equal to or less than 0.919 g/cm^3 ". While there is support to recite density of $0.880\text{-}0.930 \text{ g/cm}^3$ or $0.910\text{-}0.929 \text{ g/cm}^3$, there is no support to recite density equal to or less than 0.919 g/cm^3 , which includes all values below 0.919 . Additionally, there does not appear to be support for the upper value of 0.919 g/cm^3 . While the examples discloses two polyethylenes with such density, these are just two specific types of polyethylene and do not provide support or the broad disclosure of low density polyethylene having such density.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 2, and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tritsch (US 3,088,848) in view of Ishikawa et al. (US 5,212,011).

14. Regarding claim 1, Tritsch discloses a pressure-sensitive adhesive (PSA) tape comprising a film (supporting substrate) comprising a blend of high density and low density polyethylenes (see Figure).

15. With respect to the claim limitation of LDPE having density equal to or less than 0.919 g/cm^3 , Tritsch discloses that "Low density polyethylenes generally exhibits a melting point...has an average density of **about 0.92**...carbon chain." (column 1 lines 42-45). Thus, the disclosure of Tritsch with respect to LDPE having density of **about 0.92** meets the claimed LDPE having density equal to or less than 0.919 g/cm^3 . Thus, given that the use of "about" includes values slightly above and below that disclosed, it is clear that the disclosure of Tritsch meets the aforementioned claim limitation.

16. With respect to the claim 1 limitation "wherein said high-density polyethylene and said low-density polyethylene are present in a weight percent ratio selected from the range of 10/90 to 90/10", Tritsch discloses blend with varying amounts of HDPE (note

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balance being LDPE) (see Table 1, column 2 lines 35-40, column 4 lines 50-54), which reads on Applicant's weight% ratio of HDPE to LDPE in the range of 10/90 to 90/10.

17. As to the **newly amended claim requirement** "wherein no filler is added to the resin composition", the Examiner notes that aforementioned Table 1 of Tritsch does not disclose of addition of any filler in the blend of LDPE and HDPE. This proves that no filler is added to the resin composition of Tritsch's invention. Further, at column 6 lines 53-55, Tritsch discloses that "**If desired**, filler materials and dyes or pigments **may be** incorporated as desired". This disclosure of Tritsch is further evidence that addition of filler is optional. Accordingly, Tritsch meets the aforementioned claim requirement.

18. Regarding claims 1 and 2, Tritsch is silent with respect to teaching the supporting substrate having an uneven portion on one side, the maximum stress at elongation of not more than 50% of the PSA tape is larger than the stress at break, wherein the elongation at break of the PSA tape is from 100 to 300%, and the maximum stress at an elongation equal to or less than 50% is at least 11 N/10mm.

19. However, Ishikawa discloses an adhesive tape which is low in cost and the properties of which such as unwindability, adhesiveness, trimmed clearance, printability, transparency and longitudinal tearing strength are improved without spoiling lateral hand cutting characteristics (abstract). The adhesive tape of Ishikawa is formed of a polyolefin resin base film and an **uneven surface** is formed on the other side thereof (abstract).

20. It is noted that the film of Tritsch is formed of polyolefin based resins. Ishikawa discloses advantages of creating uneven surface on the substrate such improvement in adhesiveness and printability (column 2 lines 65-68).

21. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the substrate of Tritsch with an uneven portion as taught by Ishikawa, motivated by the desire to obtain an adhesive tape having improved properties of adhesiveness and printability.

22. Regarding claims 1 and 2, as to the claimed properties of the maximum stress at elongation of not more than 50% of the PSA tape is larger than the stress at break, wherein the elongation at break of the PSA tape is from 100 to 300%, and the maximum stress at an elongation equal to or less than 50% is at least 11 N/10mm, it is reasonable to presume that said properties are necessarily present in the PSA tape of Tritsch as modified by Ishikawa.

23. The support for said presumption is based on the fact that the PSA tapes of applicant and Tritsch as modified by Ishikawa comprise a supporting substrate having an uneven portion on one side, wherein the supporting substrates of applicant and Tritsch as modified by Ishikawa comprise LDPE having density equal to or less than 0.919 g/cm^3 and ratio of HDPE to LDPE is 10/90 to 91/10, and there is no filler added to the resin composition. Therefore, the PSA tapes of Tritsch as modified by Ishikawa and that of applicant are structurally and compositionally equivalent. Hence, the presently claimed properties would necessarily be present in the PSA tape of Tritsch as modified by Ishikawa. The burden is shifted to Applicant to prove it otherwise (see *In re Fitzgerald*, 205 USPQ 594).

24. With respect to claim 5, it is noted that as set forth above Tritsch discloses support having a blend of LDPE and HDPE and Tritsch does not teach addition of fillers such as pigments and dyes to the support of his invention. Thus, the support of Tritsch and that of applicant as claimed are identical in composition and structure. Accordingly, Tritsch's support is necessarily transparent. Alternatively, it is noted that Tritsch's invention is related to PSA tapes. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a transparent backing (supporting substrate) for adhesive tape such one can print on it to convey information, or when such tapes with transparent backings are used as a packaging tapes, one can easily see through the tape and clearly identify the contents that are being packaged with such transparent tapes.

25. Regarding claims 6 and 7, as set forth previously, Tritsch discloses that "Low density polyethylenes generally exhibits a melting point...has an average density of about 0.92...carbon chain." (column 1 lines 42-45). Thus, the disclosure of Tritsch with respect to LDPE having density of **about** 0.92 meets the claimed LDPE having density equal to or less than 0.919 g/cm^3 .

26. With respect to claims 8 and 9, as to the density of HDPE, Tritsch discloses that "The melting point of high density polyethylene...It had an average density greater than 0.92, the density ordinarily ranging from about 0.95 to about 0.98...state." (column 1 lines 46-50 and claim 1).

Response to Arguments

27. Applicant's arguments received on 03/13/09 have been considered but they are not found persuasive.

28. With respect to applicant's arguments relating to the Examiner's objection to the specification, the Examiner submits that applicant's response relating to undue experimentation are moot as the Examiner has withdrawn his comments with respect to the undue experimentation.

29. Applicant asserts "Further, Applicants submits that Example 2 of the present invention employs LDPE having a density...and none of Comparative Examples 1, 3, and 5 referred to by the Examiner employ LDPE within the claimed range...Thus, the Examiner's assertion is unfounded." (see page 5 of 03/13/09 amendment).

30. The aforementioned assertion is interpreted as applicant appears to think that the Examiner is implying that there is an issue with the claimed invention. However, the Examiner submits that he is not implying that there is an issue with respect to the **claimed invention**; rather the issue is with respect to the certain disclosure in the specification.

31. Specifically, it is noted that the specification recites "Incidentally, as the high-density polyethylene are preferable ones having a density of from 0.940 g/cm³ to 0.970 g/cm³, and are especially preferably ones having a density of from 0.950 g/cm³ to 0.965 g/cm³. On the other had, as the low-density polyethylene are preferably ones having a density of from 0.880 g/cm³ to 0.930 g/cm³, and are especially preferable ones having a

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density of from 0.910 g/cm^3 to 0.929 g/cm^3 ." (See 0039 of the PG PUB of the presently claimed invention).

32. Example 2 of Table 1 of the Applicant's invention discloses a blend of 70% LDPE1 (density 0.919 g/cm^3) and 30% HDPE1 (0.964 g/cm^3) with no filler added to the blend. The densities of LDPE and HDPE in the example 2 are within the range as that of disclosed by Applicant (0039 of the PG PUB of the presently claimed invention). The adhesive tape of this example is completely satisfactory in terms of properties of maximum stress at elongation, stress at break, and elongation at break (see Table 3). However, Comparative Examples 1, 3, and 5, all use same weight% of LDPE and HDPE as that of Example 2. Additionally, the densities of LDPE and HDPE used in the aforementioned Comparative Examples are within the range that is disclosed by Applicant (see paragraph 0039 of the PG PUB of the presently claimed invention). Further, filler is not added in the blend disclosed in the aforementioned Comparative Examples. But as seen from Table 4, the results (e.g. maximum stress at break) of the aforementioned comparative examples are inadequate. For example, the maximum stress at break for comparative example 2 is smaller than the stress at break (see Table 4).

33. Based on the above, there appears to be contradiction in the specification. Given applicant's teachings in the specification for suitable densities of the polymers, Comparative Examples 1, 3, and 5 should have acceptable result. Since comparative examples uses LDPE and HDPE with the densities that applicant's specification describes as being suitable, it is not clear why the comparative examples show inferior results (e.g. maximum stress at break). Clarification is requested.

34. As to applicant's arguments that Ishikawa reference discloses addition of large amount of filler such as calcium carbonate, and this embodiment corresponds to applicant's Comparative Example 6 in which the effects of the present invention is not achieved, the Examiner submits following:

35. It is submitted that the teaching of Ishikawa with respect to addition of filler is not germane to the basis of the *prima facie* case of obviousness as set forth in this Office action, because the Examiner is only relying on Ishikawa reference to render applicant's claim limitation of "uneven portion" as being obvious. Additionally, it is noted that applicant has acknowledged that Ishikawa discloses uneven surface that is formed on one side of the substrate (see page 6, second full paragraph of 03/13/09 amendment). The Examiner further submits that as set forth above, the primary reference of Tritsch already discloses that filler is not added to the resin composition.

36. The Examiner further submits that while Ishikawa do not disclose all the features of the presently claimed invention, Ishikawa is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely uneven portion as presently claimed and in combination with the primary reference, discloses the presently claimed invention. Accordingly, applicant's arguments are not found persuasive.

Conclusion

37. **The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Karatsu et al. (US 4,790,676) discloses a film for a printer ribbon containing HDPE and LDPE (abstract).**

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

39. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

40. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./
Examiner, Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794

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